

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) A method for lung volume reduction, said method comprising:

isolating a lung tissue segment;
aspirating the segment through a lung passage to cause the segment to at least partially collapse; and

implanting a barrier formed at least in part from a metal composition which expands in situ across the lung passage.

2. (previously presented) A method as in claim 1, further comprising inflating the lung tissue segment to a pressure higher than its normal inflated pressure to reduce gas flow obstruction.

3. (Original) A method as in claim 2, further comprising deflating adjacent lung regions while the lung tissue segment is inflated.

4. (Original) A method as in claim 2, wherein inflating the lung tissue segment comprises positioning a catheter in an air passage leading into the segment, inflating a balloon on the catheter to seal the air passage, and introducing a gas through the catheter to inflate the segment.

5. (previously presented) A method as in claim 1, further comprising introducing an agent to the lung tissue segment, wherein the agent clears or dilates air passages within the segment to reduce gas flow obstructions.

6. (Original) A method as in claim 5, wherein the agent is selected from the group consisting of mucolytic agents, bronchodilators, surfactants, desiccants, solvents, necrosing agents, perfluorocarbons, and absorbents.

7. (Original) A method as in claim 5, wherein introducing the agent comprises positioning a catheter in an air passage leading to the segment and delivering the agent through the catheter to the segment.

8. (previously presented) A method as in claim 1, further comprising delivering mechanical energy to the lung segment to reduce gas flow obstructions.

9. (Original) A method as in claim 8, wherein the mechanical energy is vibrational energy.

10. (Original) A method as in claim 8, wherein the vibrational energy is delivered by inflating the segment with a non-compressible fluid and ultrasonically exciting the fluid to distribute ultrasonic energy throughout the segment.

11. (Original) A method as in claim 1, wherein isolating the lung tissue segment comprises positioning a catheter in an air passage leading to the lung tissue segment and inflating a balloon on the catheter to occlude the air passage.

12. (Original) A method as in claim 11, wherein aspirating comprises drawing gas and liquids present from the isolated lung segment through a lumen in the catheter while the balloon remains inflated.

13. (Original) A method as in claim 12, wherein aspirating is performed at a negative pressure in the range from 2 mmHg to 50 mmHg.

Claims 14-16 (canceled).

17. (currently amended) A method as in claim ~~14~~6, wherein implanting the barrier further ~~the plug~~ comprises introducing a collagen hydrogel which is not fully hydrated prior to deployment.

18. (currently amended) A method as in claim 1, wherein implanting a barrier further comprises ~~comprises~~ introducing an adhesive in the air passage.

19. (Original) A method as in claim 18, wherein the adhesive includes a radiopaque tracer.

Claims 20-90 (canceled).

91. (previously presented) A method as in claim 1, wherein aspirating the segment is performed after implanting the barrier.

92. (previously presented) A method as in claim 1, wherein the barrier comprises a metal frame and an air impermeable cover.

93. (previously presented) A method as in claim 92, wherein the metal frame is resilient and adapted to expand upon release from constraint.

94. (previously presented) A method as in claim 92, wherein the metal frame is balloon expandable.

95. (previously presented) A method as in claim 1, further comprising inducing absorption atelectasis within the lung segment prior to aspirating the segment.

96. (previously presented) A method as in claim 95, wherein inducing absorption atelectasis comprises insufflating the lung segment with a high oxygen concentration gas.

97. (previously presented) A method as in claim 96, wherein the high oxygen concentration is at least 50% by volume.

98. (previously presented) A method as in claim 96, wherein the high oxygen concentration is at least 75% by volume.

99. (previously presented) A method as in claim 96, wherein the oxygen is substantially pure.

100. (previously presented) A method as in claim 96, wherein the lung is lavaged with a mixture of oxygen and a low molecular weight gas.